

CMOD2005

**SURFACE MOUNT
HIGH VOLTAGE
SILICON SWITCHING DIODE**

ULTRAmini™



SOD-523 CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMOD2005 is a Silicon Switching Diode, manufactured by the epitaxial planar process, epoxy molded in a SOD-523 surface mount package, designed for applications requiring high voltage capability.

MARKING CODE: 25

MAXIMUM RATINGS: ($T_A=25^{\circ}\text{C}$)

Continuous Reverse Voltage
Peak Repetitive Reverse Voltage
Average Forward Current
Continuous Forward Current ($T_L=90^{\circ}\text{C}$)
Peak Repetitive Forward Current, $t_p=1.0\text{ms}$
Peak Forward Surge Current, $t_p=1.0\mu\text{s}$
Power Dissipation
Power Dissipation ($T_L=90^{\circ}\text{C}$)
Operating and Storage Junction Temperature
Thermal Resistance
Thermal Resistance

SYMBOL

V_R 300
 V_{RRM} 350
 I_O 200
 I_F 250
 I_{FRM} 1.0
 I_{FSM} 4.5
 P_D 250
 P_D 500
 T_J, T_{stg} -65 to +150
 θ_{JA} 500
 θ_{JL} 120

UNITS

V
V
mA
mA
A
A
mW
mW
 $^{\circ}\text{C}$
 $^{\circ}\text{C/W}$
 $^{\circ}\text{C/W}$

ELECTRICAL CHARACTERISTICS: ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_R	$V_R=280\text{V}$		100	nA
I_R	$V_R=280\text{V}, T_A=150^{\circ}\text{C}$		100	μA
BV_R	$I_R=100\mu\text{A}$	350		V
V_F	$I_F=20\text{mA}$		0.87	V
V_F	$I_F=100\text{mA}$		1.0	V
V_F	$I_F=200\text{mA}$		1.25	V
C_T	$V_R=0, f=1.0\text{MHz}$		5.0	pF
t_{rr}	$I_R=I_F=30\text{mA}, I_{rr}=3.0\text{mA}, R_L=100\Omega$		50	ns

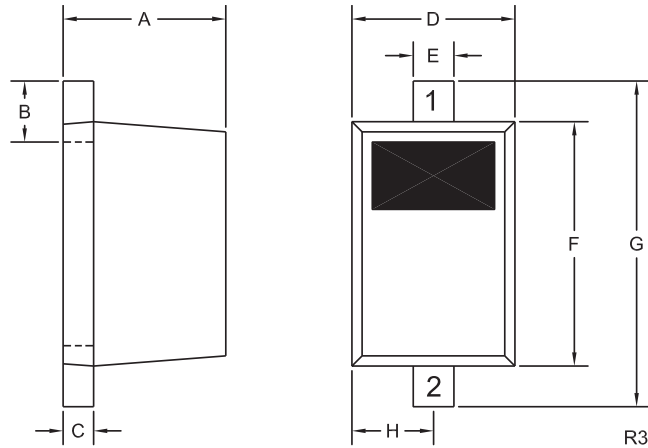
R3 (11-April 2011)

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SOD-523 CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) Cathode
- 2) Anode

MARKING CODE: 25

DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.020	0.031	0.50	0.80
B	0.008	0.016	0.20	0.40
C	0.002	0.008	0.05	0.20
D	0.028	0.035	0.70	0.90
E	0.008	0.014	0.20	0.35
F	0.039	0.055	1.00	1.40
G	0.055	0.071	1.40	1.80
H	0.016		0.40	

SOD-523 (REV: R3)

R3 (11-April 2011)